the main transmission line comprises one of:

a coaxial transmission line, a microstrip line, a stripline line, a rectangular waveguide, a coplanar waveguide, and a ridged waveguide.

6. (Original) A wireless telephone handset according to claim 1, wherein each of the first and second notch filters further includes:

a second coupling mechanism; and

a second electrically tunable resonator coupled to the main transmission line through the second coupling mechanism, wherein the first and second coupling mechanisms are spaced ¼ wavelength apart at an operating frequency of the filter.

7. (Currently Amended) A wireless telephone handset comprising:

an antenna connection;

a diplexer coupled to the antenna connection;

a transmit section connected to a first port of the diplexer;

a receive section connected to a second port of the diplexer; and

wherein the diplexer includes first and second notch filters, each of the notch filters comprising a bandpass filter connected between a termination and one of a circulator or a 3dB hybrid and including at least one tunable dielectric varactor.

## REMARKS

Reconsideration of this application is respectfully requested in light of the above amendments and following remarks. Claims 1 – 7 remain in the application; claim 7 has been amended.

I. Regarding the rejection of claims 1 – 6, the office action provided claims 1-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki et al. in combination with Dimos et al., Mee, and Ishizuka et al.

Applicants respectfully submit that the Examiner cannot satisfy the basic requirements of a prima facie case of obviousness by combining four distinct prior art references (to wit: Miyazaki et al. in combination with Dimos et al., Mee, and Ishizuka et al.) to reject pending independent Claim 1 and dependent claims 2 – 6. For the Examiner to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the references. Second, there must be some reasonable expectation of success. Finally, the references when combined must teach or suggest all of the claimed limitations. Manual of Patent Examining Procedure, Section 2143. For the reasons articulated below, the Applicants believe that in the present case, the Examiner has not met this burden.

First, Applicants submit that there is no suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the references. Miyazaki relates to a high frequency filter having a plurality of serially coupled first resonators and a second resonator. The self described "field of the invention" provides that Miyazaki relates to a high frequency filter mainly used in a VHF band, UHF band, a microwave band and a millimeter wave band and more particularly to polarize it and improve its characteristic. Applicant agrees with the Examiner that Miyazaki does not teach that the capacitors are electrically tunable capacitors such that the resonators are tunable, that the capacitors are tunable dielectric varactors (Claim 2); that the varactors have a substrate with a first dielectric constant and having generally a planar surface; a tunable dielectric layer having a second dielectric constant greater than said first dielectric constant; and first and second electrodes positioned on a surface of the tunable dielectric layer opposite the generally planar surface of the substrate and a gap separating the electrodes (Claim 3); that the filter is two filters

(as transmit and receive filters) each used in a wireless telephone diplexer coupled to an antenna (Claim 1). Applicant further submits there is no mention of use in a wireless telephone or any suggestion or teaching of the possibility of using an electronically tunable varactor.

Dino provides tunable dielectric films having low electrical losses and more specifically it provides a method for forming dielectric thin films having substantially reduced electrical losses at microwave and millimeter wave frequencies relative to conventional dielectric thin films. The reduction in losses is realized by dramatically increasing the grain sizes of the dielectric films, thereby minimizing inter granular scattering of the microwave signal due to grain boundaries and point defects. The increase in grain size is realized by heating the film to a temperature at which the grains experience regrowth. Thus, Dino merely relates to methods of forming dielectric thin films, rather than the uses of these thin films in components or devices. Thus, there is no suggestion, teaching or inference of using the tunable dielectric films of Dino with Miyazaki's "high frequency filter mainly used in a VHF band, UHF band, a microwave band and a millimeter wave band and more particularly to polarize it and improve its characteristic."

Further, it is even a greater stretch to combine the method of making the tunable dielectric films of Dino with the high frequency filter of Miyazaki to achieve a first electrically tunable resonator coupled to the main transmission line through the first coupling mechanism which is included in a mobile telephone of the present invention.

Applicant submits that for at least the reasons set forth above, the second criteria that there must be some reasonable expectation of success is also not met. As claims 2 – 6 depend from claim 1, and Applicant further submits that these claims are in condition for allowance. Further, although Applicant has not elaborated on Mee and Ishizuka et al., combining four references to derive the limitations of the as filed claims would be extremely difficult.

II. Regarding the rejection of claims 7, Applicant has amended claim 7 to include: "and including at least one tunable dielectric varactor." Applicant believes that

none of the cited references include this element and for the reasons set forth above, Applicant submits that the cited references relating to claim 1 would not be germane to claim 7.

## CONCLUSION

It is respectfully submitted that, in view of the foregoing amendment and remarks, the application is in clear condition for allowance. The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. 1.16 or 1.17 to Deposit Account No. 502697. The Examiner is invited to contact the undersigned at 202-607-4607 to discuss any matter regarding this application.

Respectfully submitted,

Date: 4-25-05

James S. Finn
Registration No. 38,450

14431 Goliad Dr., Box #8
Malakoff, TX 75148
(202) 607-4607 (phone)
202-318-2450 (eFax)